

Karine Auclair

List of Publications by Year in descending order

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60
papers

1,952
citations

304368

22
h-index

276539

41
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74
all docs

74
docs citations

74
times ranked

2432
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrophilic properties of itaconate and derivatives regulate the ATF3 inflammatory axis. <i>Nature</i> , 2018, 556, 501-504.	13.7	438
2	Comparative evaluation of itaconate and its derivatives reveals divergent inflammasome and type I interferon regulation in macrophages. <i>Nature Metabolism</i> , 2020, 2, 594-602.	5.1	163
3	Progress towards the easier use of P450 enzymes. <i>Molecular BioSystems</i> , 2006, 2, 462.	2.9	80
4	Synthesis and Structure-Activity Relationships of Truncated Bisubstrate Inhibitors of Aminoglycoside 6-N-Acetyltransferases. <i>Journal of Medicinal Chemistry</i> , 2006, 49, 5273-5281.	2.9	74
5	Solvent-Free Enzyme Activity: Quick, High-Yielding Mechanoenzymatic Hydrolysis of Cellulose into Glucose. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 2621-2624.	7.2	72
6	Enzymatic depolymerization of highly crystalline polyethylene terephthalate enabled in moist-solid reaction mixtures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	62
7	Regio- and Chemoselective 6-N-Derivatization of Aminoglycosides: Bisubstrate Inhibitors as Probes To Study Aminoglycoside 6-N-Acetyltransferases. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 6859-6862.	7.2	54
8	Replacement of Natural Cofactors by Selected Hydrogen Peroxide Donors or Organic Peroxides Results in Improved Activity for CYP3A4 and CYP2D6. <i>ChemBioChem</i> , 2006, 7, 916-919.	1.3	48
9	Predictable Stereoselective and Chemoselective Hydroxylations and Epoxidations with P450 3A4. <i>Journal of the American Chemical Society</i> , 2011, 133, 7853-7858.	6.6	47
10	Mechanoenzymatic Breakdown of Chitinous Material to <i>N</i> -Acetylglucosamine: The Benefits of a Solventless Environment. <i>ChemSusChem</i> , 2019, 12, 3481-3490.	3.6	47
11	Kinetic and Structural Analysis of Bisubstrate Inhibition of the <i>Salmonella enterica</i> Aminoglycoside 6-N-Acetyltransferase. <i>Biochemistry</i> , 2008, 47, 579-584.	1.2	39
12	Allosteric Activation of Cytochrome P450 3A4 via Progesterone Bioconjugation. <i>Bioconjugate Chemistry</i> , 2017, 28, 885-889.	1.8	38
13	Mechanoenzymatic Transformations in the Absence of Bulk Water: A More Natural Way of Using Enzymes. <i>ChemBioChem</i> , 2020, 21, 742-758.	1.3	38
14	Global ITC fitting methods in studies of protein allostery. <i>Methods</i> , 2015, 76, 149-161.	1.9	36
15	Efficient Enzymatic Hydrolysis of Biomass Hemicellulose in the Absence of Bulk Water. <i>Molecules</i> , 2019, 24, 4206.	1.7	35
16	Solvent-Free Enzyme Activity: Quick, High-Yielding Mechanoenzymatic Hydrolysis of Cellulose into Glucose. <i>Angewandte Chemie</i> , 2018, 130, 2651-2654.	1.6	34
17	Synthesis and use of sulfonamide-, sulfoxide-, or sulfone-containing aminoglycoside-CoA bisubstrates as mechanistic probes for aminoglycoside N-6-acetyltransferase. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2008, 18, 5518-5522.	1.0	32
18	Inhibition of Aminoglycoside-Deactivating Enzymes APH(3)-IIIa and AAC(6)-IIi by Amphiphilic Paromomycin O-2-Ether Analogues. <i>ChemMedChem</i> , 2011, 6, 1961-1966.	1.6	32

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19	Synthesis of a Phosphonate-Linked Aminoglycoside-Coenzyme...A Bisubstrate and Use in Mechanistic Studies of an Enzyme Involved in Aminoglycoside Resistance. <i>Chemistry - A European Journal</i> , 2009, 15, 2064-2070.	1.7	31
20	Triazole Substitution of a Labile Amide Bond Stabilizes Pantothenamides and Improves Their Antiplasmodial Potency. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 7146-7152.	1.4	30
21	Towards Controlling the Reactivity of Enzymes in Mechanochemistry: Inert Surfaces Protect β -Glucosidase Activity During Ball Milling. <i>ChemSusChem</i> , 2020, 13, 106-110.	3.6	29
22	Controlling substrate specificity and product regio- and stereo-selectivities of P450 enzymes without mutagenesis. <i>Bioorganic and Medicinal Chemistry</i> , 2014, 22, 5547-5554.	1.4	24
23	Mutations in the pantothenate kinase of <i>Plasmodium falciparum</i> confer diverse sensitivity profiles to antiplasmodial pantothenate analogues. <i>PLoS Pathogens</i> , 2018, 14, e1006918.	2.1	24
24	Inhibitors of Aminoglycoside Resistance Activated in Cells. <i>ACS Chemical Biology</i> , 2012, 7, 470-475.	1.6	23
25	Substrate-dependent switching of the allosteric binding mechanism of a dimeric enzyme. <i>Nature Chemical Biology</i> , 2014, 10, 937-942.	3.9	23
26	3-Oxo-hexahydro-1 <i>H</i> -isoindole-4-carboxylic Acid as a Drug Chiral Bicyclic Scaffold: Structure-Based Design and Preparation of Conformationally Constrained Covalent and Noncovalent Prolyl Oligopeptidase Inhibitors. <i>Journal of Medicinal Chemistry</i> , 2016, 59, 4221-4234.	2.9	21
27	Rapid mechanoenzymatic saccharification of lignocellulosic biomass without bulk water or chemical pre-treatment. <i>Green Chemistry</i> , 2020, 22, 3877-3884.	4.6	21
28	Geminal dialkyl derivatives of N-substituted pantothenamides: Synthesis and antibacterial activity. <i>Bioorganic and Medicinal Chemistry</i> , 2011, 19, 2696-2706.	1.4	20
29	Site-Specific Fluorescent Labeling and Oriented Immobilization of a Triple Mutant of CYP3A4 via C64. <i>Bioconjugate Chemistry</i> , 2012, 23, 826-836.	1.8	17
30	Stereochemical modification of geminal dialkyl substituents on pantothenamides alters antimicrobial activity. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2014, 24, 3274-3277.	1.0	17
31	Small Molecule Restores Itaconate Sensitivity in <i>Salmonella enterica</i> : A Potential New Approach to Treating Bacterial Infections. <i>ChemBioChem</i> , 2016, 17, 1513-1517.	1.3	17
32	The use of aminoglycoside derivatives to study the mechanism of aminoglycoside 6'-N-acetyltransferase and the role of 6'-NH ₂ in antibacterial activity. <i>Bioorganic and Medicinal Chemistry</i> , 2007, 15, 2944-2951.	1.4	15
33	Regioselective Epoxidations by Cytochrome P450 3A4 Using a Theobromine Chemical Auxiliary to Predictably Produce β - or α -Amino Epoxides. <i>Advanced Synthesis and Catalysis</i> , 2017, 359, 3983-3989.	2.1	15
34	Use of bioconjugation with cytochrome P450 enzymes. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2018, 1866, 32-51.	1.1	15
35	Mechanoenzymatic Reactions Involving Polymeric Substrates or Products. <i>ChemSusChem</i> , 2022, 15, .	3.6	15
36	Exploring structural motifs necessary for substrate binding in the active site of <i>Escherichia coli</i> pantothenate kinase. <i>Bioorganic and Medicinal Chemistry</i> , 2014, 22, 3083-3090.	1.4	14

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37	Dual use of a chemical auxiliary: molecularly imprinted polymers for the selective recovery of products from biocatalytic reaction mixtures. <i>Green Chemistry</i> , 2012, 14, 2206.	4.6	13
38	A cross-metathesis approach to novel pantothenamide derivatives. <i>Beilstein Journal of Organic Chemistry</i> , 2016, 12, 963-968.	1.3	13
39	Active Site Crowding of Cytochrome P450 3A4 as a Strategy To Alter Its Selectivity. <i>ChemBioChem</i> , 2017, 18, 248-252.	1.3	13
40	A Covalently Attached Progesterone Molecule Outcompetes the Binding of Free Progesterone at an Allosteric Site of Cytochrome P450 3A4. <i>Bioconjugate Chemistry</i> , 2019, 30, 1629-1635.	1.8	13
41	Type II Ligands as Chemical Auxiliaries To Favor Enzymatic Transformations by P450 2E1. <i>ChemBioChem</i> , 2012, 13, 2527-2536.	1.3	12
42	Structure-Activity Relationships of Antiplasmodial Pantothenamide Analogues Reveal a New Way by Which Triazoles Mimic Amide Bonds. <i>ChemMedChem</i> , 2018, 13, 2677-2683.	1.6	12
43	Effect of pH on the antimicrobial activity of the macrophage metabolite itaconate. <i>Microbiology (United Kingdom)</i> , 2021, 167, .	0.7	12
44	Highly Efficient P(III)-to-P(V) Oxidative Rearrangement. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , 2006, 181, 159-165.	0.8	11
45	An Overview of Molecular Spectroscopic Studies on Theobromine and Related Alkaloids. <i>Applied Spectroscopy Reviews</i> , 2012, 47, 163-179.	3.4	10
46	Metabolic Instability of Cyanothiazolidine-Based Prolyl Oligopeptidase Inhibitors: a Structural Assignment Challenge and Potential Medicinal Chemistry Implications. <i>ChemMedChem</i> , 2015, 10, 1174-1183.	1.6	9
47	Inhibition and Activation of Kinases by Reaction Products: A Reporter-Free Assay. <i>Analytical Chemistry</i> , 2019, 91, 11803-11811.	3.2	9
48	Steroid bioconjugation to a CYP3A4 allosteric site and its effect on substrate binding and coupling efficiency. <i>Archives of Biochemistry and Biophysics</i> , 2018, 653, 90-96.	1.4	8
49	Exploring Heteroaromatic Rings as a Replacement for the Labile Amide of Antiplasmodial Pantothenamides. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 4478-4497.	2.9	8
50	Synthesis of 4-aminopantetheine and derivatives to probe aminoglycoside N-6-acetyltransferase. <i>Organic and Biomolecular Chemistry</i> , 2011, 9, 1538.	1.5	7
51	Use of Chemical Auxiliaries to Control P450 Enzymes for Predictable Oxidations at Unactivated C-H Bonds of Substrates. <i>Advances in Experimental Medicine and Biology</i> , 2015, 851, 209-228.	0.8	7
52	Probing the ligand preferences of the three types of bacterial pantothenate kinase. <i>Bioorganic and Medicinal Chemistry</i> , 2018, 26, 5896-5902.	1.4	6
53	Cellular Studies of an Aminoglycoside Potentiator Reveal a New Inhibitor of Aminoglycoside Resistance. <i>ChemBioChem</i> , 2018, 19, 2107-2113.	1.3	6
54	The coenzyme A biosynthetic pathway: A new tool for prodrug bioactivation. <i>Archives of Biochemistry and Biophysics</i> , 2019, 672, 108069.	1.4	6

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55	Structural Dynamics of Cytochrome P450 3A4 in the Presence of Substrates and Cytochrome P450 Reductase. <i>Biochemistry</i> , 2021, 60, 2259-2271.	1.2	6
56	Itaconate: an antimicrobial metabolite of macrophages. <i>Canadian Journal of Chemistry</i> , 2022, 100, 104-113.	0.6	3
57	Ammonium Chloride-Promoted Rapid Synthesis of Monosubstituted Ureas under Microwave Irradiation. <i>European Journal of Organic Chemistry</i> , 2021, 2021, 5135.	1.2	3
58	Combining Small-Molecule Bioconjugation and Hydrogen-Deuterium Exchange Mass Spectrometry (HDX-MS) to Expose Allostery: the Case of Human Cytochrome P450 3A4. <i>ACS Chemical Biology</i> , 2021, 16, 882-890.	1.6	2
59	Enzymes Beat Chemists in the Formation of an Unnatural Bond. <i>ChemBioChem</i> , 2017, 18, 432-434.	1.3	1
60	Inside Cover: Inhibition of Aminoglycoside-Deactivating Enzymes APH(3)-IIIa and AAC(6)-II by Amphiphilic Paromomycin O ² -Ether Analogues (<i>ChemMedChem</i> 11/2011). <i>ChemMedChem</i> , 2011, 6, 1942-1942.	1.6	0